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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,617	09/06/2006	Hiroshi Itahara	41084	7914
52054	7590	01/28/2008		
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER TRAN, VINCENT HUY	
			ART UNIT 2115	PAPER NUMBER
			NOTIFICATION DATE 01/28/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/598,617

Applicant(s)

ITAHARA, HIROSHI

Examiner

Vincent T. Tran

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/06/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the communication filed on 9/6/06
2. Claims 1-7 are pending for examination.
3. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office action.

Priority

4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on 9/6/06 were considered by the examiner.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Leary et al. US 20020180498 ("O'Leary").
8. As per claim 1, O'Leary discloses a synchronous follow-up apparatus, comprising:

a PLL portion that outputs a first clock signal [406 - Front-End PLL]; and

a control loop portion [408] that includes:

a reference frequency signal generating portion that outputs a reference frequency signal [232];

a clock signal generating portion [200] that generates a second clock signal having the same frequency as a frequency of the first clock signal based on the reference frequency signal; and

a frequency control signal generating portion [200] that generates a frequency control signal to change the frequency of the second clock signal based on a frequency difference between the first clock signal and the second clock signal that occurs after a predetermined time and outputs the frequency control signal to the control signal generating portion [paragraph 28, 46].

9. As per claim 2, O'Leary discloses the PLL portion includes:

A voltage controlled oscillating portion that outputs an output signal as the first clock signal; and

a control voltage generating portion that detects a phase different between a receiving signal and the output signal from the voltage controlled oscillating portion and generates a control voltage signal for inputting to the voltage controlled oscillating portion based on the phase difference [fig. 1].

10. As per claim 5, 6, see discussion in claim 1 and 2.

11. Claims 1, 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Lesso US 20050281367.
12. As per claim 1 and 5, Lesso discloses a synchronous follow-up apparatus, comprising:
a PLL portion that outputs a first clock signal [PLL transmitter side fig. 1]; and
a control loop portion [receiver side] that includes:
a reference frequency signal generating portion that outputs a reference frequency signal [Osc 12 of receiver side];
a clock signal generating portion [PLL of receiver side] that generates a second clock signal [LCK fig. 1] having the same frequency as a frequency of the first clock signal [RCK] based on the reference frequency signal [paragraph 0002]; and
a frequency control signal generating portion [3 fig. 2] that generates a frequency control signal [4] to change the frequency of the second clock signal based on a frequency difference between the first clock signal and the second clock signal that occurs after a predetermined time and outputs the frequency control signal to the control signal generating portion [paragraph 0014-0015, 0038, 0070].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Leary as applied to claim 1 above.

17. As per claim 3, O'Leary does not teach the PLL portion is an LSI having a PLL function. However, it is obvious to one of ordinary skill that the specific feature is merely a designer choice.

18. Claim 4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesso as applied to claim 1 or 5 above.

19. As per claim 4 and 7, Lesso teaches the frequency control signal generating portion outputs a preceding frequency control signal which achieved a frequency tuning between the first clock signal and the second clock signal most recently when the detected frequency difference between the first clock signal and the second clock signal is equal to or greater than a predetermined value [paragraph 0070, 0077-0078, 0093]; and

Wherein the clock signal generating portion outputs the second clock signal based on the frequency control signal output from the frequency control signal generating portion [fig. 3].

20. Lesso does not explicitly teach the second clock signal as a radio reference signal; however, it is obvious to one of ordinary skill that the specific feature is merely a designer choice.

Conclusion

Examiner's note:

Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Prior Art not relied upon:

Please refer to the references listed in attached PTO-892, which, are not relied upon for claim rejection since these references are relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (571)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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